



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/427,114	10/26/1999	MITSURU OBARA	009683-353	2737

21839 7590 10/01/2002

BURNS DOANE SWECKER & MATHIS L L P
POST OFFICE BOX 1404
ALEXANDRIA, VA 22313-1404

EXAMINER

MEONSKE, TONIA L

ART UNIT	PAPER NUMBER
----------	--------------

2183

DATE MAILED: 10/01/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/427,114

Applicant(s)

OBARA ET AL.

Examiner

Tonia L Meonske

Art Unit

2183

-- Th MAILING DATE of this communication appears on th cover sheet with the correspond nc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on June 27, 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Drawings

1.) The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on June 27, 2002, have been approved by Examiner. A proper drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The correction to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

2.) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3.) Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Orimo et al., U.S. Patent Number 5,630,135, in view of Tanenbaum, Distributed Operating Systems, 1995, cited as prior art reference in the last office action, paper number 5, mailed on March 27, 2002.

4.) The rejections under 35 USC 103(a) are respectfully maintained with respect to claims 1-20 and incorporated by reference as set forth in the last office action, paper number 5, mailed on March 27, 2002.

5.) Referring to claim 21, Orimo in combination with Tanenbaum have taught the data processing system of claim 1, as described in the previous office action, paper number 5, mailed on March 27, 2002. Orimo has not specifically taught wherein a given data item is stored at the same location in said memory after each of said plurality of processings is

performed on said given data item. However, Tannenbaum has taught on multiprocessor systems, sharing of objects stored in the same location between two or more processors is essential when a single problem is being solved by a collection of cooperating processes running in parallel on different processors. (page 449, section 8.3.2) Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the data processing system of Orimar store a given data item at the same location in said memory after each of said plurality of processings is performed on said given data item in order for all of the processors to share the same data from the same location.

6.) Referring to claim 22, Orimo in combination with Tanenbaum has taught the data processing system of claim 21, as described above. Orimo has not specifically taught wherein the state information for said given data item is stored at the same location in said memory after each of said plurality of processings is performed on said given data item. However, Tannenbaum has taught on multiprocessor systems, sharing of objects stored in the same location between two or more processors is essential when a single problem is being solved by a collection of cooperating processes running in parallel on different processors. (page 449, section 8.3.2) Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the data processing system of Orimar store the state information for said given data item at the same location in said memory after each of said plurality of processings is performed on said given data item in order for all of the processors to access and share state information for a given data item from the same location.

Art Unit: 2183

7.) Claim 23 and 24 do not recite limitations above the claimed invention set forth in claim 21 and 22 and are therefore rejected for the same reasons set forth in the rejection of claims 21 and 22 above.

Response to Arguments

8.) Applicant's arguments filed June 27, 2002 have been fully considered but they are not persuasive.

9.) Applicant argues on page 12 with respect to the Orimo patent in essence:

"There is no prescribed order in which the different versions of the program are executed. In fact they can be executed in parallel."

10.) However, Orimo has in fact taught a prescribed order in which different versions of the program are executed. There is an order or sequence in which each of the different versions of the programs are received and executed by processor 14. Processor 14 first receives and partially executes, or stores, message 520a of a first version, then processor 14 secondly receives and partially executes, or stores, message 520b of a second version. Selection logic then selects one of messages 520a and 520b. So Orimo has in fact taught a prescribed order, or sequence, in which different versions of the program are executed.

11.) Also, Applicant has admitted on page 13 that processor 14 waits for reception of message 520b before executing. Therefore an ordering has been prescribed in which different versions of the program are executed, as admitted by Applicant.

12.) Applicant argues on pages 11, 13, and 15 in essence :

"It would not have been obvious to combine the teachings of the tanenbaum with those of the Orimo patent to arrive at the presently claimed invention"

"It is respectfully submitted, however, that the teachings of the Tanenbaum reference do not have any applicability to a system of the type disclosed in the Orimo patent."

13.) However, Orimo contains multiple processors (figure 1, elements 11-14) for executing multiple-version programs which perform the same function (abstract, column 3, lines 51-67). Tanenbaum has taught shared memory between a plurality of processors. (page 449, section 8.3.2) Furthermore, Tannenbaum has taught on multiprocessor systems, sharing of objects between two or more processors is essential when a single problem is being solved by a collection of cooperating processes running in parallel on different processors. (page 449, section 8.3.2) Therefore the teaching of Tanenbaum, sharing of memory between a plurality of processors, applies to Orimo because there are a plurality of processors in Orimo solving a single problem and each processor accesses similar data for performing each process. It would benefit Orimo to have the shared memory so the similar data being accessed by more than one processor would not need to be copied, but could be directly retrieved from the shared memory by all processors.

14.) Applicant argues on page 14 in essence :

"The Tanenbaum reference does not pertain to a system in which multiple processes are performed on the same data in a prescribed order."

15.) However, Tanenbaum was not cited to show an ordering. Therefore the fact that Tanenbaum does not have an ordering is not relevant to the rejection, because Orimo has taught this feature. (column 8, lines 46-47)

16.) Applicant argues on page 15 in reference to the Orimo patent in essence :

"There is no disclosure of a controller that controls a plurality of processors, particularity on the basis of state information."

Art Unit: 2183

17.) However, Orimo has taught where each processor controls itself to execute processings and each individual control cooperates with the control of the other processors based on state information to provide control for the entire system (Figure 1, element 100, column 4, lines 4-9, column 5, lines 27-39). This control for the entire system operates on a plurality of processors (Figure 1, elements 11-14). There is state information that each processor passes to each other to control the entire system (column 7 line 50-column 9 line 5, the processors pass state information, or messages to each other which controls the system).

18.) Applicant argues in page 15 in essence:

“Since the Orimo patent does not disclose a first controller, it cannot be interpreted to disclose this additional feature of the invention.”

19.) However, as has been described above, Orimo has in fact disclosed a first controller in claim 4. Since Applicant relied upon the fact that the Orimo patent does not disclose a first controller, which was proven above to not be the case, this argument is moot.

20.) Applicant argues on page 16 in essence :

“There is no disclosure in the patent suggesting that attribute information is used by a controller in order to change the order of execution of processes on an item of data.”

21.) However, Orimo has taught that when the processor recognizes that there is a different version of a program, the processor waits for the different version of the program to arrive and the instructions for different versions of the are selected between, thereby changing the order of execution of processes on an item of data based on the attribute data. (column 5, lines 39-49, column 8, lines 46-66) When there is a different

Art Unit: 2183

version of a program, the order of execution of processes is changed, based on the attribute data.

22.) Applicant argues on page 16 in essence:

"Claim 8 recites a one-to-one relationship between the state information and the data items."

23.) The Applicant is correct in that there is a one-to-one relationship in claim 8, one region to store state information corresponds to one single region where the data to be processed is stored. Orimo has in fact taught this one-to-one relationship, one region to store state information (Figure 2, element 201), which corresponds to one single region where the data to be processed is stored (Figure 2, element 205).

24.) Applicant argues on page 16 in essence:

"Claim 9 recites that the shared memory has one region to store state information corresponding to a plurality of regions where data to be processed is stored."

25.) Orimo in combination with Tanenbaum have in fact taught that the shared memory has one region to store state information (Figure 5, element 3060) corresponding to a plurality of regions where data to be processed is stored (Figure 5, element 3063).

Conclusion

26.) **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

27.) A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

Art Unit: 2183

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

28.) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tonia L Meonske whose telephone number is (703) 305-3993. The examiner can normally be reached on Monday-Thursday, 9-6:30.

29.) If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie P Chan can be reached on (703) 305-9712. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

30.) Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.



RICHARD L. ELLIS
PRIMARY EXAMINER

tlm
September 30, 2002